ABSTRACT

A method and apparatus for processing numerical values in a computer program. In various embodiments, the invention provides an arbitrary and expandable high-precision datatype. The datatype encapsulates large-integer data and associated operators. The large-integer data has runtime expandable precision, and the operations perform functions on large-integer data and system integer data in a manner that is functionally equivalent to corresponding language-provided integer operations. The language-provided integer operations are overloaded with the operations of the large-integer datatype, whereby a user is unburdened with special commands and syntax, and large-integer data is interoperable with system integer data.